

## All Recommendations

Thursday, October 04, 2012 6:15:39 AM

Record #	ABU	Unit	I/R	Item Nbr	Additional Consideration (Recommendation)	ABU Proposal	Resolution	Verifier Comments	Verifier Name	Verified On	Due Date	RR	SOE	Assigned To	Status
17203	Cracking	LPG Storage	2011	12.13.1.	1. Issue discussed was identification of minor errors on P&IDs. Consider updating P&IDs per PHA redlines. ☐ Non-Risk Ranked Actionable Item required to meet regulatory/statutory requirements and/or to be consistent with Chevron's guiding principles.	Consider updating P&IDs per PHA redlines	P&ID's updated and sent to Design Engineering, Laura Leeds.  Reassigned to Brian Scaief on 5/2/11 to generate and complete MOC for P&ID update.  All P&ID's marked up and completed per MOC 24527 (2/14/2012)	P&ID's verified as complete	Moore, Ronald A.	2/15/2012	2/15/2012			Scaief, Brian R.	Completed
17204	Cracking	LPG Storage	2011	12.12.1.	2. Verify that upstream equipment is adequately protected in case of blocked-in situation at LPG spheres. ☐ Non-Risk Ranked Actionable Item required to meet regulatory/statutory requirements and/or to be consistent with Chevron's guiding principles.	Verify that upstream equipment is adequately protected in case of blocked-in situation at LPG spheres.	Reviewed upstream equipment and identified the upstream response to block in of rundown line at LPG spheres. No deficiencies noted. Report issued to Tim Storrs.  Review has been forwarded to Ron Smith and has been documented in supplemental PHA files for PHA Record # 17204. O:\Psm\Mod-only\PHAffiles\PHA-COR ISO Recommendation Supporting Documents\PHA Database.  No further follow-up is required.	documentation complete	Moore, Ronald A.	10/20/2011	2/15/2012			Perone, John	Completed

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17205	Cracking	LPG Storage	2011	12.14.1.	3. Ensure that a piping specification break review is completed. ☐ Consider reviewing the piping specification breaks associated with the LPG Storage facilities to ensure appropriateness for service. Correct P&IDs as needed. Make corrections in field as needed. ☐ Non-Risk Ranked Actionable Item required to meet regulatory/statutory requirements and/or to be consistent with Chevron's guiding principles.	Consider reviewing the piping specification breaks associated with the LPG Storage facilities to ensure appropriateness for service. Correct P&IDs as needed. Make corrections in field as needed.	No issues were found with any material compatibility issues for the main piping components as all material was found to be carbon steel or greater. Per RI for LPG, most of the piping is AF1. those sections that were found to be ABO piping may only be a concern if the pressures in the line go above the 285psig pressure rating. However, due to hydraulic line losses, the pressure that could be seen in these ABO lines is not substantial and is below the expected 285psig. If a more thorough analysis is wanted, P-414 from the YDIB has the most lines associated with it that are ABO piping at the YDIB.	Piping specification breaks associated with the LPG Storage facilities have been reviewed and are found to be adequate.	Moorhead, Margaret E.	4/28/2011	2/15/2012			Scaief, Brian R.	Completed

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17206	Cracking	LPG Storage	2011	12.12.2.1	4. Issue discussed was each sphere has two PSVs; some have PSVs set at the same pressure, others have PSVs set at different pressures. It is not clear if the PSVs are full capacity or if both PSVs are required for overpressure protection. □ Consider reviewing PSV sizing criteria for the LPG spheres and document the sizing basis for all PSVs on the 705 form. If any PSVs are full capacity installed spares they must be set at the same pressure. Consider blocking in any full capacity installed spare during normal operation. Make any adjustments to PSV set points indicated by the review and make changes to all relevant PSI. □ Non-Risk Ranked Actionable Item required to meet regulatory/statutory requirements and/or to be consistent with Chevron's guiding principles.	Consider reviewing PSV sizing criteria for the LPG spheres and document the sizing basis for all PSVs on the 705 form. If any PSVs are full capacity installed spares they must be set at the same pressure. Consider blocking in any full capacity installed spare during normal operation. Make any adjustments to PSV set points indicated by the review and make changes to all relevant PSI.	Review of all PSV's completed and report sent to Design Engineering, Laura Leeds.  Reassigned to Brian Scaief on 5/2/11 for followup on any implementation activities resulting from PSV Review.  Status 2/8/2012 Mark Crow (MXEW): This action item requires that an LPG storage tank be taken out of service to complete the work necessary to resolve this action item. The field work is to be completed by June 2012. To allow additional time to update all PSI associated with this work, the due date for this action item has been set to 9/30/2012.  Per Brian Scaief: All of the initial recommendations will be completed by the due date with exception of one finding. During the evaluation of the PSV's on the LPG spheres, PSV FC-6079 on T-1623 was determined to need replacement due to sizing. In order to safely perform this work the tank will be taken out of service which requires a shutdown. Currently the spare tank T-1622 is out of service for repairs. There is an EWO in place for performing repairs on T-1622 and currently we are waiting for the materials to arrive. From the evaluation, FC-6079 is under sized by ~15% for the worst case fire scenario. The calculation does not take into consideration the water deluge system which exists in the field. The likely hood is low for an event requiring the worst case relief capacity.	Installation of new PRD complete and has been placed in service. Inlet Block Valve has been CARSEALED open	McGreevy, Donald E.	9/6/2012	9/30/2012			Scaief, Brian R.	Completed

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							<p>This is based on several reasons 1) T-1623 has a water deluge system, 2) there are pressure controls on the sphere, 3) the pressure controller on T-1623 is a fail open to which a controller failure will cause the sphere to vent, and 4) likely hood of a pooling fire under the sphere is low (pooling fire is used for worst case fire scenario).</p> <p>Due to a shutdown of T-1623 required to safely change the PVS and the repairs needed on T-1622 this work will take an additional 3-4 months to complete with a June completion date. This puts Listed below are the items that will be complete by the due date and which item remains.</p> <p>The following work have been completed.</p> <p>1. Study of PSV's on LPG storage spheres</p> <p>2. Action items associated with blocking in all spare PSV's.</p> <p>3. Update of all 705's to capture review results with the exception of FC-6079.</p> <p>4. Update of all P&amp;ID's to document PSV changes with the exception of T-1623.</p> <p>5. Completed all red line mark ups of P&amp;ID's from PHA evaluation. MOC 23821 complete</p> <p>Remaining work and path forward</p> <p>1. Plan/schedule change out of PSV FC—6079 by June 2012 after T-1622 is back in service. (MOC 24528)</p>								

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17207	Cracking	LPG Storage	2011	12.3.1.1	5. Issue discussed is that step 2.1 of Job Aid LPG024J states "Complete any manifold moves necessary to route product to desired tank" but does not provide manifolding moves or reference to where this information can be found. ☐ Consider adding reference to, and location of, Offloading Lineup Sheets in step 2.1 of LPG024J.	Consider adding reference to, and location of, Offloading Lineup Sheets in step 2.1 of LPG024J.	Instructions provided to LPG trainer on 3/4/11 to revise procedure and complete by 5/1/11.  Job Aid updated for step 2.1 with reference to user to use the proper Off-loading Line Up Sheet for the product that is being off-loaded - mam 5/26/11	Done per Ron Moore	McGreevy, Donald E.	1/31/2012	2/15/2012	5	A	Moore, Ronald A.	Completed
17208	Cracking	LPG Storage	2011	12.3.3.1	6. The team noted several sub-steps missing from Step 4 in Job Aid LPG024J. ☐ Consider adding the words to Step 4.12 to close the vapor valve at the propane vapor loading header (in addition to closing the product valve at the liquid loading header) or add as a new step after Step 4.12. ☐ Consider adding the following steps after Step 4.14 ☐Open vent valve to sphere☐Open AOV to sphere. ☐ Consider changing the wording in Step 4.16 to read "Close AOV used for pressure source, then close vent valve at vent header."	Consider adding the words to Step 4.12 to close the vapor valve at the propane vapor loading header (in addition to closing the product valve at the liquid loading header) or add as a new step after Step 4.12.  Consider adding the following steps after Step 4.14 - Open vent valve to sphere - Open AOV to sphere  Consider changing the wording in Step 4.16 to read "Close AOV used for pressure source, then close vent valve at vent header."	Instructions provided to LPG trainer on 3/4/11 to revise procedure and complete by 5/1/11.  Job Aid updated with corrected items in step 2 and step 4 - mam 5/26/11	Done per RNAME	McGreevy, Donald E.	1/31/2012	2/15/2012	7	A	Moore, Ronald A.	Completed

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17209	Cracking	LPG Storage	2011	12.3.2.1	7. Issue discussed is the apparent inadequacy of the Offloading Lineup Sheets, Railcar Offloading Routing Form (LPGN4820) and their organization. Forms and checklists are unclear, similar forms are in different formats, and related items are located in multiple locations. In addition, certain steps seem redundant and/or out of sequence. ☐ Consider a comprehensive review and rework of the Offloading Lineup Sheets, Railcar Offloading Routing Form (LPGN4820) and related documents to make them more clear, consistent and cohesive.	Consider a comprehensive review and rework of the Offloading Lineup Sheets, Railcar Offloading Routing Form (LPGN4820) and related documents to make them more clear, consistent and cohesive.	Instructions provided to LPG trainer on 3/4/11 to revise procedure and complete by 5/1/11. Changes made to procedure as recommended to improve clarity. - rnam 5/26/11	Don per RNAM	McGreevy, Donald E.	1/31/2012	2/15/2012	5	A	Moore, Ronald A.	Completed
17210	Cracking	LPG Storage	2011	12.3.4.1	8. Step 1.4 in Job Aid LPG022J requires connection of bonding and grounding clamps. This is not currently performed as hoses now have bonding cables attached. ☐ Consider modifying procedure step 1.4 to indicate bonding/grounding of truck is required only if bonding cable on hose is nonfunctional. Add note that truck bonding/grounding can present a tripping hazard.	Consider modifying procedure step 1.4 to indicate bonding/grounding of truck is required only if bonding cable on hose is nonfunctional. Add note that truck bonding/grounding can present a tripping hazard.  Ensure bonding is tested during hydrotesting of loading arms. Confirm that it is acceptable to use a bonded arm without a separate bonding cable.	Instructions provided to LPG trainer on 3/4/11 to revise procedure and complete by 5/1/11. Revisions capture on Job Aid. Loading and venting hose PM instructions have been revised to include testing the hose bonding - rnam 5/26/11	Done per RNAM	McGreevy, Donald E.	1/31/2012	2/15/2012	7	S	Moore, Ronald A.	Completed
17211	Cracking	LPG Storage	2011	12.3.5.1	9. Step 3.4 of Job Aid LPG022J does not include instruction to open truck valve internals. ☐ Consider adding to 3.4 "Ensure that truck liquid and vapor valve internals are open."	Consider adding to 3.4 "Ensure that truck liquid and vapor valve internals are open."	Instructions provided to LPG trainer on 3/4/11 to revise procedure and complete by 5/1/11. Job aid updated with recommendation. Revisions incorporated in steps 4.3 & 4.4 - rnam 5/26/11	Done per RNAM	McGreevy, Donald E.	1/31/2012	2/15/2012	9	A	Moore, Ronald A.	Completed

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17212	Cracking	LPG Storage	2011	12.3.6.1	10. Step 5 of Job Aid LPG022J contains several references to 32PDC166 which is no longer in use (in steps 5.14, 5.16, 5.18, 5.19). ☐ Consider rewriting segments of procedure regarding control of sphere pressure during unloading and delete references to 32PDC166.	Evaluate need for 32PDC166, modify as appropriate. Modify procedure to match normal operations.	Instructions provided to LPG trainer on 3/4/11 to revise procedure and complete by 5/1/11. Job Aid updated to delete all references to 32PDC166 - rnam 5/26/11	Done per RNAME	McGreevy, Donald E.	1/31/2012	2/15/2012	6	A	Moore, Ronald A.	Completed
17213	Cracking	LPG Storage	2011	12.3.7.1	11. Step 6.4 of Job Aid LPG022J refers to gates no longer in use. ☐ Consider removing reference to gates.	Consider removing reference to gates.	Instructions provided to LPG trainer on 3/4/11 to revise procedure and complete by 5/1/11. Job aid updated to remove reference to gates - rnam 5/26/11	Done per RNAME	McGreevy, Donald E.	1/31/2012	2/15/2012	6	A	Moore, Ronald A.	Completed

Totals: 11 Records